

**REPLACED BY
ART 34 AMDT**

We claim:

1. A hard surface cleaning concentrate composition comprising:
 - a) at least one non-cationic antimicrobial agent;
 - 5 b) at least one solvent selected from water soluble organic solvent, water insoluble organic solvent, terpenes, essential oil, and mixtures thereof;
 - c) an anionic soap surfactant;
 - d) at least one surfactant selected from nonionic surfactant, anionic surfactant excluding the anionic soap of c), and mixtures thereof;
 - 10 e) optionally, one or more alkanolamines;
 - f) optionally, one or more conventional constituents selected from dyes, colorants, fragrances and fragrance solubilizers/enhancers, light stabilizers, viscosity modifying agents, pH adjusting agents and pH buffers including organic and inorganic salts, optical brighteners, opacifying agents, hydrotropes, antifoaming
 - 15 agents, enzymes, anti-spotting agents, anti-oxidants, preservatives, and anti-corrosion agents; and
 - g) the balance, water.
2. The cleaning concentrate according to claim 1 wherein the a) non-cationic
20 antimicrobial agent is selected from pyrithiones, dimethyldimethylol hydantoin, methylchloroisothiazolinone/methylisothiazolinone sodium sulfite, sodium bisulfite, imidazolidinyl urea, diazolidinyl urea, benzyl alcohol, 2-bromo-2-nitropropane-1,3-diol, formalin (formaldehyde), iodopropenyl butylcarbamate, chloroacetamide, methanamine, methyldibromonitrile glutaronitrile, glutaraldehyde, 5-bromo-5-nitro-
25 1,3-dioxane, phenethyl alcohol, o-phenylphenol/sodium o-phenylphenol, sodium hydroxymethylglycinate, polymethoxy bicyclic oxazolidine, dimethoxane, thimersal dichlorobenzyl alcohol, captan, chlorphenenesin, dichlorophene, chlorbutanol, glyceryl laurate, halogenated diphenyl ethers, phenolic compounds, mono- and poly-alkyl and aromatic halophenols, resorcinol and its derivatives, bisphenolic

compounds, benzoic esters (parabens), halogenated carbanilides, 3-trifluoromethyl-4,4'-dichlorocarbanilide, and 3,3',4-trichlorocarbanilide.

3. The cleaning concentrate according to claims 1 and 2 wherein the a) non-cationic antimicrobial agent is a mono- and poly-alkyl and aromatic halophenol selected from the group p-chlorophenol, methyl p-chlorophenol, ethyl p-chlorophenol, n-propyl p-chlorophenol, n-butyl p-chlorophenol, n-amyl p-chlorophenol, sec-amyl p-chlorophenol, n-hexyl p-chlorophenol, cyclohexyl p-chlorophenol, n-heptyl p-chlorophenol, n-octyl p-chlorophenol, o-chlorophenol, methyl o-chlorophenol, ethyl o-chlorophenol, n-propyl o-chlorophenol, n-butyl o-chlorophenol, n-amyl o-chlorophenol, tert-amyl o-chlorophenol, n-hexyl o-chlorophenol, n-heptyl o-chlorophenol, o-benzyl p-chlorophenol, o-benzyl-m-methyl p-chlorophenol, o-benzyl-m, m-dimethyl p-chlorophenol, o-phenylethyl p-chlorophenol, o-phenylethyl-m-methyl p-chlorophenol, 3-methyl p-chlorophenol, 3,5-dimethyl p-chlorophenol, 6-ethyl-3-methyl p-chlorophenol, 6-n-propyl-3-methyl p-chlorophenol, 6-iso-propyl-3-methyl p-chlorophenol, 2-ethyl-3,5-dimethyl p-chlorophenol, 6-sec-butyl-3-methyl p-chlorophenol, 2-iso-propyl-3,5-dimethyl p-chlorophenol, 6-diethylmethyl-3-methyl p-chlorophenol, 6-iso-propyl-2-ethyl-3-methyl p-chlorophenol, 2-sec-amyl-3,5-dimethyl p-chlorophenol 2-diethylmethyl-3,5-dimethyl p-chlorophenol, 6-sec-octyl-3-methyl p-chlorophenol, p-chloro-m-cresol, p-bromophenol, methyl p-bromophenol, ethyl p-bromophenol, n-propyl p-bromophenol, n-butyl p-bromophenol, n-amyl p-bromophenol, sec-amyl p-bromophenol, n-hexyl p-bromophenol, cyclohexyl p-bromophenol, o-bromophenol, tert-amyl o-bromophenol, n-hexyl o-bromophenol, n-propyl-m,m-dimethyl o-bromophenol, 2-phenyl phenol, 4-chloro-2-methyl phenol, 4-chloro-3-methyl phenol, 4-chloro-3,5-dimethyl phenol, 2,4-dichloro-3,5-dimethylphenol, 3,4,5,6-terabromo-2-methylphenol, 5-methyl-2-pentylphenol, 4-isopropyl-3-methylphenol, para-chloro-meta-xyleneol, dichloro meta xyleneol, chlorothymol, and 5-chloro-2-hydroxydiphenylmethane,

4. The composition according to claims 1 to 3 wherein the b) solvent is selected from C₁₋₄ alcohols, terpenes, essential oil, and mixtures thereof.
5. The composition according to claims 1 to 4 wherein the b) solvent is a mixture of essential oil and C₁₋₄ alcohol.
6. The composition according to claim 5 wherein the essential oil is pine oil.
7. The composition according to claim 6 wherein the C₁₋₄ alcohol is ethanol.
8. The composition according to claim 6 wherein the C₁₋₄ alcohol is isopropanol.
9. The composition according to claims 1 to 4 wherein the b) solvent is a mixture of essential oil.
10. The composition according to claim 5 wherein the b) solvent is a mixture of essential oil and ethanol.
11. The composition according to claim 10 wherein the essential oil is a mixture of pine oil and d-limonene.
12. The composition according to claims 1 to 11 wherein the anionic soap surfactant is selected from alkali metal soap fatty acids containing from about 8 to about 24 carbon atoms.
13. The composition according to claim 12 wherein the anionic soap surfactant is selected from alkali metal soap fatty acids.

14. The composition according to claims 1 to 13 wherein the non-cationic antimicrobial agent is present in an amount of from about 0.05 to about 15 wt%, more preferably from about 0.1 to about 8 wt%, and more preferably from about 0.2 to about 6 wt%.
- 5 15. The composition according to claims 1 to 14 wherein the anionic soap surfactant is present in an amount of from about 0.1 to about 20 wt%, preferably from about 0.5 to about 15 wt%, and more preferably from about 1 to about 10 wt%.
- 10 16. The composition according to claims 1 to 15 wherein the d) surfactant is a mixture of nonionic surfactant and anionic surfactant excluding the anionic soap of c).
17. The composition according to claims 1 to 15 wherein the d) surfactant is nonionic surfactant.
- 15 18. The composition according to claims 1 to 15 wherein the d) surfactant is an anionic surfactant excluding the anionic soap of c).
19. The composition according to claims 16 and 17 wherein the nonionic surfactant is an alcohol ethoxylate.
- 20 20. The composition according to claim 19 wherein the alcohol ethoxylate is an alkylphenol ethoxylate.
21. The composition according to claims 16, 18, or 19 wherein the anionic surfactant excluding the anionic soap of c) is a sulfate or sulfonate.
- 25 22. The composition according to claim 21 wherein the anionic surfactant excluding the anionic soap of c) is a sulfate.

23. The composition according to claim 21 wherein the anionic surfactant excluding the anionic soap of c) is a sulfonate.
24. The composition according to claims 1 to 23 wherein the d) surfactant is present in an amount of from about 0.01 to about 10wt%, preferably from about 0.05 to about 8wt%, and more preferably from about 0.1 to about 5wt%.
25. The composition according to claims 1 to 24 which contain e) at least one alkanolamine.
26. The composition according to claim 25 wherein the alkanolamine is monoethanolamine.
27. A hard surface cleaning concentrate composition comprising:
- a) from about 0.05 to about 15wt%, preferably from about 0.1 to about 8wt%, and more preferably from about 0.2 to about 6wt% of at least non-cationic antimicrobial agent;
 - b) from about 0.1 to about 20wt%, preferably from about 0.5 to about 15wt%, and more preferably from about 1 to about 15wt% of at least one solvent selected from water soluble organic solvent, water insoluble organic solvent, terpene, essential oil, and mixtures thereof;
 - c) from about 0.1 to about 20wt%, preferably from about 0.5 to about 15wt%, and more preferably from about 1 to about 10wt% of an anionic soap surfactant;
 - d) from about 0.01 to about 10wt%, preferably from about 0.05 to about 8wt%, and more preferably from about 0.1 to about 5wt% of at least one surfactant selected from nonionic surfactant, anionic surfactant excluding the anionic soap of c), and mixtures thereof;
 - e) optionally, from about 0.1 to about 10wt% of one or more alkanolamines;
 - f) optionally, from about 0 to about 10wt% of one or more conventional constituents selected from dyes, colorants, fragrances and fragrance

solubilizers/enhancers, light stabilizers, viscosity modifying agents, pH adjusting agents and pH buffers including organic and inorganic salts, optical brighteners, opacifying agents, hydrotropes, antifoaming agents, enzymes, anti-spotting agents, anti-oxidants, preservatives, and anti-corrosion agents; and

5 g) the balance, water.

28. The composition according to claim 27 which contains e) one or more alkanolamines.

29. The compositions substantially described in Examples Ex.1 to Ex.27.

10 30. A process for cleaning and/or disinfecting a hard surface requiring such treatment which process includes the steps of:

dispersing in water in a weight ratio of concentrate composition:water of from 1:0.1 to 1:1000 a composition according to any one of claims 1 to 29; and

15 applying the dispersed concentrate to the hard surface in an amount effective for providing cleaning and/or disinfecting treatment of the hard surface.

INTERNATIONAL SEARCH REPORT

Intern Application No

PCT/GB 03/04419

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C11D10/04 C11D3/43 C11D3/20 C11D3/48

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C11D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 668 419 A (MOSEMAN ROGER E) 26 May 1987 (1987-05-26) claims example column 2, line 7 -column 3, line 46 ----	1-15, 17, 19, 20, 24, 27
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Neys, P

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